

CLAIMS

1. Process for preparing alkali- and heat-stable sugar alcohol compositions which
5 exhibits an optical density lower than or equal to 0,100 in an S-test,
characterised in that a sugar alcohol composition is treated with a strong base
anion exchange resin in the hydroxide form, at a temperature between 30 °C and
100 °C.
- 10 2. Process according to claim 1, **characterised in that** in said process the sugar
alcohol composition is fed to a column-system containing a strong base anion
exchange resin in the hydroxide form with a volume throughput of ≤ 6 bed
volumes (BV)/hour.
- 15 3. Process according to claim 2, **characterised in that** a single column-system is
used.
4. Process according to claim 2, **characterised in that** a multiple column-system is
used, in which at least part of the columns of the system is used in a regeneration
20 mode, while the remaining columns are used in a service mode, comprising the
steps of stabilisation and simultaneous decolourisation.
5. Process according to any one of claims 2 to 4, **characterised in that** the volume
throughput is between 0,1 and 1 BV/hour.
- 25 6. Process according to claim 5, **characterised in that** the volume throughput is
between 0,2 and 0,8 BV/hour.
7. Process according to any one of claims 1 to 6, **characterised in that** said sugar
30 alcohol composition has a conductivity value less than 100 $\mu\text{S}/\text{cm}$ before
treatment with the strong base anion exchange resin.

8. Process according to claim 7, **characterised in that** said sugar alcohol composition has a conductivity less than 50 $\mu\text{S}/\text{cm}$ before treatment with the strong base anion exchange resin.
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9. Process according to any one of claims 1 to 8, **characterised in that** said strong base anion exchange resin belongs to the thermally stable-type category.
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10. Process according to any one of claims 1 to 8, **characterised in that** said strong base anion exchange resin is of the styrenic type I, type II or type III.
11. Process according to any of claims 1 to 8, **characterised in that** said strong base anion exchange resin is of the acrylic resin type.
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12. Process according to claim 10 or 11, **characterised in that** when using a styrenic type I or type III, or an acrylic type resin, a column temperature is used between 45 °C and 70 °C.
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13. Process according to claim 11, **characterised in that** when using a styrenic type II resin, a column temperature is used which is less than 45 °C.
14. Process according to claim 10, **characterised in that** when using a thermally stable resin, a column temperature is used which is more than 75 °C.
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15. Process according to any one of claims 1 to 14, **characterised in that** said sugar alcohol composition is prepared by hydrogenating a starch hydrolysate, obtained from an acid conversion, a combined acid-enzymatic conversion or a multiple enzyme conversion of starch.
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16. Process according to any one of claims 1 to 14, **characterised in that** said sugar alcohol composition is prepared by hydrogenating reducing sugars belonging to

the categories of keto- or aldopentoses, keto- or aldohexoses, disaccharides or non-starch oligosaccharide mixtures.

17. Process according to any one of the preceding claims, **characterised in that** said
5 sugar alcohol composition has a pH-value between 8,5 and 9,5 when sorting from the strong base anion exchange resin.
18. Sorbitol composition containing at least 95% sorbitol on dry substance and exhibiting an optical density lower than 0,02 in an S-test.
- 10 19. Sorbitol composition according to claim 18, characterised in that it contains at least 99 % sorbitol on dry substance and exhibits an optical density of lower than 0,01 in an S-test.